

frequently appears on the other side of the walk, so vigorous and penetrating are those great rootstocks.

There are probably 150 to 200 plants in the Wychwood Sanctuary growing under various habitat conditions. A small colony is established on a sandy, gravelly island on the lake border, but here the soil is not so congenial and competition from other plants is severe, so that it has not developed the rootstock habit as it has in the garden. Evidently similar conditions obtained at the original Illinois station and occur also in Virginia as described in the July RHODORA, which militated against its spread in this manner.

The authors of the July article note that it bears few lateral branches. The island colony at Wychwood does just this thing, but under cultivation in the garden, frequent lateral branches become the rule rather than the exception.

Another habit which the books do not mention is that its flowers open only in full sun. On cloudy days the flowers never open fully; on sunny days not until about 8:00 or 8:30 a. m., closing about 5:30 to 6:00 in the evening.

It is a strange fate indeed which left one little colony of this plant on a tiny gravelly island in the Kankakee River, Illinois, and another survival 2000 feet up the slope of a Virginia mountain, the two stations so remote that its specific name becomes more meaningful than ever.

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NOTES ON *FESTUCA OCTOFLORA*

M. L. FERNALD

FESTUCA OCTOFLORA Walt., var. **tenella** (Willd.), comb. nov. *F. tenella* Willd. Sp. Pl. i. 419 (1797).

F. OCTOFLORA, var. **glauca** (Nutt.), comb. nov. *F. tenella*, β *glauca* Nutt. Trans. Am. Phil. Soc. v. 147 (1834).

Festuca octoflora was considered by Piper¹ as a species occurring through the length and breadth of the United States and overlapping into Canada and Mexico. Such an inclusive range is certainly very unusual, if not unprecedented, in our indigenous flora; but, although admitting the species to be "very variable," Piper felt that "for the

¹ Piper, North American Species of *Festuca*, Contrib. U. S. Nat. Herb. x. 11 (1906).

most part the characters are too inconstant for nomenclatorial recognition." Nevertheless, the material in the Gray Herbarium falls rather definitely into four pronounced variations, which, although not absolutely exclusive, have marked geographic segregation. *F. octoflora* came presumably from the Santee valley in South Carolina. Walter, Fl. Carol. 81 (1788), cited no station and "according to Professor A. S. Hitchcock, there is no specimen to represent this species in the part of Walter's herbarium preserved in the British Museum."¹ Walter's preface was written at Santee: "CAROLINAE MERIDIALIS, ad Ripas Fluvii Santee"; consequently, I am taking as typical *F. octoflora* the extreme of the species which abounds in the Santee region.

This plant, typical *F. octoflora*, is the large southern extreme, at once distinguished from the common plant of New England, New York and Pennsylvania by its greater size in all parts; the lower glumes 3.5–4.5 mm. long; the longer awns of the lemmas 3.5–7 mm. long. This plant occurs rather generally in the Southern States from Florida to Texas, thence northward to Oklahoma and southern Illinois and near the coast to southern New Jersey. Typical *F. octoflora* is apparently the plant described as var. *aristulata* L. H. Dewey, Contrib. U. S. Nat. Herb. ii. 457 (1894).

The common plant of the North, from southern Maine to southwestern Quebec, thence to southern British Columbia, south to the interior of Georgia, and to Colorado, with a slight occurrence southward into Arkansas, Texas and California, is smaller in all parts, with loosely spiciform inflorescences; lower glumes 2.3–4 mm. long; lemmas with awns 1–3 mm. long. Rare transitional specimens occur, but in the main the northern series is clearly defined. Willdenow's description of *Festuca tenella* with "Panicula simplicissima secunda" and the probability that the plant might originally have been sent from Pennsylvania by Muhlenberg both suggest the northern plant. In order to verify this assumption, I wrote Professor Diels at Berlin and through his unfailing interest and generosity and the great courtesy of Dr. Pilger, who looked up the Willdenow sheet, my identification is now confirmed. The original sheet of Willdenow contained 5 specimens, one of which has now been deposited in the Gray Herbarium. This is a thoroughly characteristic specimen of the northern plant which I am calling *F. octoflora*, var. *tenella*.

¹ Piper, l. c.

In the flatter interior of the United States, centering on Arkansas and Oklahoma, but extending locally eastward to western Florida, northeastward to Illinois, northward to South Dakota and Wyoming and southwestward to New Mexico, much of the material passing as *Festuca octoflora* has a crowded inflorescence, the spikelets imbricated, and the awns of the lemmas greatly reduced or quite wanting, varying from mere mucronate tips to a length of 2 mm., while the glumes are even shorter than in the other varieties, the lower 1.5–3 mm. long. This extreme proves to be *F. tenella* β *glauca* Nutt., very inadequately described from Fort Smith, Arkansas. The type, at the Academy of Natural Sciences of Philadelphia, has been most kindly lent me by Dr. Pennell.

The long-awned western extreme (Colorado and New Mexico to southern California and Lower California) was described as *Festuca pusilla* Buckl. Proc. Acad. Phil. 1862, 98 (1863) from "Upper California, Nuttall" (erroneously transcribed by Piper as "northern California"). A portion of the Nuttall material in the Gray Herbarium shows it to be the common tufted plant of southern California. It is *F. octoflora*, subsp. *hirtella* Piper, l. c. 12 (1906), although the latter subspecies (or variety) was based only on characters of pubescence which seem very inconstant, rather than on the characteristic habit, compact inflorescence and long awns.

GRAY HERBARIUM.

PICEA RUBENS Sarg., forma **virgata** (Rehder), comb. nov. *P. nigra*, var. *virgata* Rehder in Bailey, Cyclop. Am. Hort. iii. 1334 (1901). *P. rubra*, f. *virgata* Rehder, RHODORA, ix. 110 (1907).

By the "homonym" rule adopted at Cambridge the name *Picea rubra* (DuRoi) Link (1831) cannot be maintained, because of the earlier, though "illegitimate," *P. rubra* Dietr. (1824), a direct renaming of *Pinus Abies* L. The first unequivocal name of the American Red Spruce seems to be *P. rubens* Sarg.—M. L. FERNALD AND C. A. WEATHERBY.

PHRAGMITES COMMUNIS Trin., var. **Berlandieri** (Fournier), comb. nov. *P. Berlandieri* Fournier, Bull. Bot. Soc. France, xxiv. 178 (1877).

It has long seemed highly improbable that an indigenous plant found throughout temperate and tropical North America should be